AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A shape memory polymeric material characterized by a T_g exceeding room temperature whose rubber modulus and elasticity are derived substantially from physical crosslinks comprising a blend of a crystalline polymer selected from the group consisting of poly(vinylidene fluoride), polyglycolides, polylactide and copolymers thereof, poly(hydroxybutyrate), poly(ethylene glycol), polyethylene, polyethylene-co-vinyl acetate, poly(vinyl chloride), poly(vinylidene chloride) and copolymers of ~~poly vinylidene chloride~~ poly(vinylidene chloride) and ~~poly vinyl chloride~~ poly(vinyl chloride) with an amorphous polymer selected from the group consisting of poly(vinyl acetate), ~~poly methyl acrylate~~ poly(methyl acrylate), ~~poly ethyl acrylate~~ poly(ethyl acrylate), atactic ~~poly methyl methacrylate~~ poly(methyl methacrylate), isotactic ~~poly methyl methacrylate~~ poly(methyl methacrylate) and syndiotactic ~~poly methyl methacrylate~~ poly(methyl methacrylate).

2. (Original) A shape memory polymeric material according to claim 1 wherein said blend is of amorphous poly(vinyl acetate) and semicrystalline polylactide.

3. (Original) A shape memory polymeric material according to claim 1 wherein said blend is of amorphous polyvinyl acetate and crystalline poly(vinylidene fluoride).

4. (Currently Amended) A shape memory polymeric material according to claim 1 wherein said blend is of crystalline poly(vinylidene fluoride) and amorphous poly(methyl methacrylate).

5. (Currently Amended) A shape memory polymeric material according to claim 1 wherein said blend is of crystalline poly(vinylidene chloride) and amorphous poly(vinyl acetate).

6. (Currently Amended) Method of preparing a shape memory polymer material characterized by a T_g exceeding room temperature whose rubber modulus and elasticity is derived substantially from physical crosslinking comprising melt blending a crystalline polymer selected from the group consisting of poly(vinylidene fluoride), polylactide, poly(hydroxybutyrate), poly(ethylene glycol), polyethylene, polyethylene-co-vinyl acetate, poly(vinyl chloride), poly(vinylidene chloride) and copolymers of ~~poly vinylidene chloride~~ poly(vinylidene chloride) and ~~poly vinyl chloride~~ poly(vinyl chloride) with an amorphous polymer selected from the group consisting of poly(vinyl acetate), ~~poly methyl acrylate~~ poly(methyl acrylate), ~~poly ethyl acrylate~~ poly(ethyl acrylate), atactic ~~poly methyl methacrylate~~ poly(methyl methacrylate), isotactic ~~poly methyl methacrylate~~ poly(methyl methacrylate) and syndiotactic ~~poly methyl methacrylate~~ poly(methyl methacrylate) at a temperature of 10~20 °C above the melting temperature of the crystalline polymers, for a time sufficient to ensure good mixing, cooling the resultant blend to room temperature, introducing said blend into a press maintained at about 180 °C, applying pressure to said blend and then rapidly cooling the film thereby formed to an annealing temperature $T_g<T_a<T_m$, where it is held until crystallization is complete and following which the film is cooled to room temperature.

7. (Original) Method according to claim 6 wherein said melt blending is carried out for from about 5 to about 10 minutes.

8. (Original) Method according to claim 6 wherein said blend is formed by melt blending amorphous poly(vinyl acetate) and crystalline polylactide.

9. (Original) Method according to claim 6 wherein said blend is formed by melt blending amorphous poly(vinyl acetate) and semicrystalline poly(vinylidene fluoride).

10. (Original) A surgical tool requiring adjustable shape but high stiffness prepared from a shape memory polymer according to claim 1.

11. (Original) An impression material for molding, duplication, rapid prototyping and dentistry prepared from a shape memory polymer according to claim 1.

12. (Original) A temperature sensor prepared from a shape memory polymer according to claim 1.

13. (Original) A heat sensitive seal prepared from a shape memory polymer according to claim 1.

14. (Original) A large strain, large force actuator prepared from a shape memory polymer according to claim 1.

15. (New) A shape memory polymeric material according to claim 1 wherein the polylactide copolymers are selected from the group consisting of poly(D,L-lactide), poly(lactide-co-glycolide), poly(lactide-co-caprolactone), poly(lactide-co-1,5-dioxepan-2-one), and poly(lactide-co-trimethylene carbonate).

16. (New) A shape memory polymeric material according to claim 1, further comprising a plasticizer, particulate material, or a combination thereof.

17. (New) A shape memory polymeric material characterized by a T_g exceeding room temperature whose rubber modulus and elasticity are derived substantially from physical crosslinks comprising a ternary blend of one crystalline polymer and two amorphous polymers.

18. (New) A shape memory polymeric material according to claim 16 wherein the ternary blend comprises crystalline poly(vinylidene fluoride), amorphous poly(methyl methacrylate), and amorphous poly(vinyl acetate).